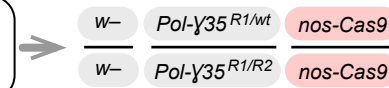
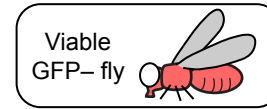


A Functional non-silent *Pol/G2^{R1}* alleles identified in flies sampled from heterozygous populations

R1 allele sampled from G₂ & G₃ flies of population #1

wt AA LeuArgSerArgAspThr...ArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAA...GGCTGGCGGAGACCATA
 R1#1 bp TTGCGCAGCCGGGAC...GCCGGCTGGCGGAGACCATA +3bp
 R1#1 AA LeuArgSerArgAspThrAlaGlyLeuAlaGluThrIle +1AA

wt AA LeuArgSerArgAspThrArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAAGGCTGGCGGAGACCATA
 R1#2 bp TTGCGCAGCCGGGACAGCCGGCTGGCGGAGACCATA +3bp
 R1#2 AA LeuArgSerArgAspSerArgLeuAlaGluThrIle +1AA



R1 allele sampled from G₂ & G₃ flies of population #3

wt AA LeuArgSerArgAspThr...ArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAA...GGCTGGCGGAGACCATA
 R1#1 bp TTGCGCAGCCGGGAC...GCCGGCTGGCGGAGACCATA +3bp
 R1#1 AA LeuArgSerArgAspThrAlaGlyLeuAlaGluThrIle +1AA

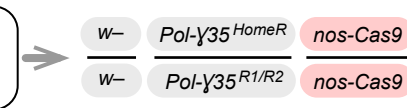
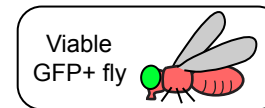
B Quantification of all *Pol/G2* resistant alleles identified in G₁₀ *Pol-G2^{HomeR}* carrier flies (30♀ and 30♂)

Population #1, at least 9 resistant alleles sampled

wt TTGCGCAGCCGGGACACAA...GGCTGGCGGAGACCATA (bp) (rate)
 #1 TTGCGCAGCCGGGAC... GGCTGGCGGAGACCATA -4 48%
 #2 TTGCGCAGCC... GGCTGGCGGAGACCATA -23 23%
 #3 TTGCGCAGCCGGGACAC... GGCTGGCGGAGACCATA -2 18%
 #4 TTGCGCAGCCGGGACAC... ATA -16 11%

Population #2, at least 5 resistant alleles sampled

wt TTGCGCAGCCGGGACACAA...GGCTGGCGGAGACCATA (bp) (rate)
 #1 TTGCGCAGCCGGGAC... ATA -18 80%
 #2 TTGCGCAGCCGGGACACAAAGGCTGGCGGAGACCATA +1 20%
 AA LeuArgSerArgAspThrArgLeuAlaGluThrIle -6AA



Population #3, at least 17 resistant alleles sampled

wt TTGCGCAGCCGGGACACAA...GGCTGGCGGAGACCATA (bp) (rate)
 #1 TTGCGCAGCCGGGACACAACTTGGCGGAGACCATA +1 34%
 #2 TTGCGCAGCCGGG... CTGGCGGAGACCATA -8 28%
 #3 TTGCGCAGCCGGGACAC... GGCTGGCGGAGACCATA -2 12%
 #4 TTGCGCAG... GCGGAGACCATA -16 7%
 #5 TTGCGCAGCCGGGAC... GGCTGGCGGAGACCATA -4 7%
 #6 TTGCGCAGCCGGGACACAAAGGCTGGCGGAGACCATA +1 6%
 #7 TTGCGCAGCCGG... CTGGCGGAGACCATA -9 5%
 AA LeuArgSerArgAspThrArgLeuAlaGluThrIle -3AA

C Functional non-silent *Pol/G2^{R1}* alleles incurring fitness costs sampled from HomeR drives at G₉

wt AA LeuArgSerArgAspThrArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAAGGCTGGCGGAGACCATA
 R1#2 bp TTGCGCAGCCGGGACAGCCGGCTGGCGGAGACCATA +3bp
 R1#2 AA LeuArgSerArgAspSerArgLeuAlaGluThrIle +1AA

wt AA LeuArgSerArgAspThrArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAAGGCTGGCGGAGACCATA
 R1#3 bp TTGCGCAGCCGGGACTGCGGGCTGGCGGAGACCATA +4bp
 R1#3 AA LeuArgSerArgAspCysGlyLeuAlaGluThrIle +2AA

wt AA LeuArgSerArgAspThrArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAAGGCTGGCGGAGACCATA
 R1#4 bp TTGCGCAGCCGGGACA...TGGCGGAGACCATA -6bp
 R1#4 AA LeuArgSerArgAspThrArgMetAlaGluThrIle -2AA

wt AA LeuArgSerArgAspThrArgLeuAlaGluThrIle
 wt bp TTGCGCAGCCGGGACACAAGGCTGGCGGAGACCATA
 R1#5 bp TTGCGCAGCCGGGACA...GGCTGGCGGAGACCATA -3bp
 R1#5 AA LeuArgSerArgAspThrArgLeuAlaGluThrIle -1AA